

Wiseman, Donald H.

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**REMARKS**

Claims 1-28 are pending in the present application. In the Office Action mailed August 25, 2004, the Examiner rejected claims 1, 2, 9-11, 16-18, and 20 under 35 U.S.C. §102(b) as being anticipated by Haldeman (USP 5,461,215). The Examiner next rejected claims 3, 5, 7, 8, 12-15, and 19 under 35 U.S.C. §103(a) as being unpatentable over Haldeman. Claims 4 and 21-28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Haldeman.

It is noted that, although in the Office Action Summary the Examiner indicated that claims 1-28 are rejected, in the body of the Office Action, the Examiner did not object to or reject claim 6. Accordingly, any further action in this case should be non-final in accordance with MPEP §706.07(a) to allow Applicant an opportunity to respond.

The Examiner rejected claims 1, 2, 9-11, 16-18, and 20 under 35 U.S.C. §102(b) as being anticipated by Haldeman stating that “[t]he Haldeman reference teaches an induction-heating coil in a crystal growth apparatus.” Applicant respectfully disagrees. Specifically, the only reference to a crystal growing apparatus contained in Haldeman is that crystal growing is commonly done with induction heaters. See col. 1, lns. 11-14.

As stated in MPEP §2131, “[a] claim is anticipated only if each and every element as set forth in the claims is found, either expressly or inherently described, in a single prior art reference.” MPEP §2131 further requires that “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.” Discussing Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). By merely stating that induction heating is commonly applicable to crystal growing, Haldeman not only does not include each and every element called for in the claims but also does not disclose the present invention in as complete detail as is contained in the claim, as required under MPEP §2131. Applicant has amended claims 1, 9, 17, and 21 to further clarify and define that which is called for therein. Applicant has also amended claims 6, 12, and 13 to comport with the amendments made to the claims from which they respectively depend.

As amended, claim 1 calls for, in part, a housing positioned about the induction heater and constructed to receive the receptacle therein. Haldeman does not teach such a housing positioned about the induction heater. Additionally, Haldeman states that “[t]he cable 10 is inserted in the tube 1 in a straight or slightly curved condition ...[and that] [b]oth ends are then attached and ...wound on a forming arbor shown in FIG. 10.” Col. 4, lns. 61-66. Haldeman further states that “[t]his provides a nominal turn radius which can be deformed elastically to

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provide a long stretched out solenoid or a short multi-turn coil." Col. 4, ln. 66 to col. 5, ln. 2. That is, the induction heater of Haldeman is deformable. Haldeman not only does not disclose positioning a housing about the induction heater but such a housing would prevent the induction heater disclosed therein from being deformable. As such, that which is called for in claim 1 is not shown or suggested in Haldeman. Accordingly, Applicant believes claim 1, and those claims that depend therefrom, are patentably distinct over Haldeman.

Applicant has also amended claim 9 to further define that which is called for therein. As amended, claim 9 calls for, in part, at least one support leg extending along a coiled portion of the casing of the induction heater and constructed to retain the casing in a coiled position. Haldeman discloses that it is the casing or tubing of the induction heater disclosed therein which retains the coiled shape of the induction heater. That is, as previously cited, Haldeman discloses that the tubing is wound about an arbor to provide the nominal turn radius. Simply, the rigidity of the tubing retains the coiled shape of the induction heater. Haldeman does not disclose or suggest a support leg to retain the casing in a coiled position. Accordingly, Applicant believes claim 9, and those claims that depend therefrom, are patentably distinct over Haldeman.

The Examiner also rejected claim 17 under 35 U.S.C. §102(b) as being anticipated by Haldeman. Applicant has amended claim 17 to further define that which is called for therein. As amended, claim 17 calls for attaching at least one leg to a coiled portion of the Litz coil to maintain a coiled orientation thereof. As previously argued with respect to claim 9, there is no disclosure in Haldeman for such a structure. Accordingly, Applicant believes claim 17, and those claims that depend therefrom, are patentably distinct over Haldeman.

The Examiner rejected claim 21 under 35 U.S.C. §103(a) as being unpatentable over Haldeman. Applicant has amended claim 21 to further define that which is called for therein. As amended, claim 21 calls for, in part, energizing a coil of wire having Litz characteristics and held in a coiled position by a housing formed thereabout. As previously argued with respect to claim 1, there is no disclosure, teaching, or suggestion in Haldeman for a housing positioned about the coiled portion of the induction heater, as called for in claim 21. Accordingly, Applicant believes claim 21, and those claims that depend therefrom, are patentably distinct over Haldeman.

Regarding the Examiner's rejection of claims 3, 5, 7, 8, 12-15, and 19 under 35 U.S.C. §103(a) as being unpatentable over Haldeman, each of these claims depend from a claim otherwise believed to be allowable. However, in rejecting these claims the Examiner states that "[t]he Haldeman reference is relied on for the same reasons as stated, *supra*, and differs from the instant claims in the construction of the coil" and that "[h]owever, in the absence of unexpected

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results, it would have been obvious to one of ordinary skill in the art to determine the optimum, operable means of construction, such as controllers, encasements, tie downs in the Haldeman reference in order to protect the coils ...." Applicant disagrees. Not only is there no duty to provide such "unexpected results," Haldeman is merely directed to induction heaters and does not disclose any crystal growing apparatus having an induction heater, let alone disclose or suggest the details set forth in these claims. There is no disclosure within Haldeman for the specific structure of a crystal growing apparatus or induction heater assembly as called for in the present claims.

The MPEP is clear that the "[t]he burden of establishing a *prima facie* case of obviousness falls on the Examiner." MPEP §2142. Furthermore, to establish a *prima facie* case, the Examiner must show, in addition to motivation or suggestion and a reasonable expectation of success, that the reference include each and every element of the claimed invention. MPEP §2143 (emphasis added). By the Examiner's own admission, "[t]he Haldeman reference ... differs from the instant claims in the construction of the coil." Therefore, each and every element of the claims is not taught or suggested in Haldeman. Accordingly, the Examiner has not established a *prima facie* case of obviousness.

Similarly, in rejecting claims 4 and 21-28 under 35 U.S.C. §103(a) as being unpatentable over Haldeman, the Examiner states that "[t]he Haldeman reference is relied on for the same reasons as stated, *supra*, and differs from the instant claims in the method of growth" and that "[h]owever, in the absence of unexpected results, it would have been obvious to one of ordinary skill in the art to determine the optimum, operable means of growth which best use the Litz coils in the Haldeman reference ...." Again, Applicant has no duty to provide unexpected results where the Examiner has not established a *prima facie* case of obviousness. By the Examiner's own admission, that which is called for the present claims is different from that which is disclosed in Haldeman. Haldeman simply discloses that induction heaters have uses in crystal growing applications. Applicant acknowledges as much in the Background of the present Application. Nonetheless, Haldeman does not teach or suggest each and every element of the present claims, as is required to establish a *prima facie* obviousness rejection.

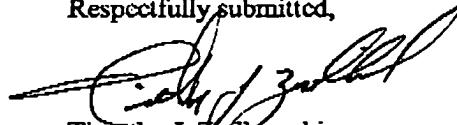
Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-28.

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Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,



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